



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/655,466	09/05/2000	Shin-Tson Wu	HRL033B	7910

7590 04/22/2002  
Cary Tope-McKay  
23852 Pacific Coast Highway 311  
Malibu, CA 90265

EXAMINER

WU, SHEAN CHIU

ART UNIT	PAPER NUMBER
----------	--------------

1756

5

DATE MAILED: 04/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicati n No.

09/655,466

Applicant(s)

WU ET AL.

Examiner

Shean C Wu

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 3, 4. 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Rejections - 35 USC § 112***

2. Claims 1-2, 5, 7-10, 12 and 14-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The notations n, x and m are not defined in the claims.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Krause et al. (US 5,242,618).

Art Unit: 1756

The reference discloses di- and trifluorotolans represented by the formula I, which are suitable as components of liquid crystal media. See Example 2 from col. 13 to col. 14. Also, see the claims 1-5 and 7-9. The reference anticipates the claimed invention.

- ✓ 5. Claims 8, 10-11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (US 5,356,558).

The reference discloses a fluorinated tolan represented by the formula (I) having a wide temperature range, a high-speed response and a large optical anisotropic value, which is useful for display devices. See the scheme for preparation for fluorinated tolan on col. 5 and col. 6, particularly, the bottom compound on col. 29.

6. Claims 1, 3-4, 8, 10-11 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 10-45642.

The reference discloses a fluorinated tolan compound represented by formula (I) having high refractive index and dielectric constant, which can improve the display devices. The formula (a) on page 2 is also useful as a component for liquid crystal composition. The reference anticipates the claimed invention.

7. Claims 1-7 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 8-209130.

The reference discloses a nematic liquid crystal composition having a high birefringent index, a wide temperature range and high voltage retention. The

Art Unit: 1756

composition comprise the components of formulae (I) and (II). See compositions 20 and 21, which comprise the claimed compounds. Also, see compounds 1-2, 4 and 6 in Table 1. The fluorinated tolan compound represented by formula (I) having high refractive index and dielectric constant which can improve the display devices. The formula (a) on page 2 is also useful as a component for liquid crystal composition. The reference anticipates the claimed invention.

8. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 9-255954.

The reference discloses fluorinate tolan represented by the formula (I-1) and (I-2) having a high reliability and heat resistance to improve liquid crystal devices. The composition comprise the components of formulae (I) and (II). See compounds 10-11, and 14-16 in Table 2 on page 10. See Examples in the reference. The reference anticipates the claimed invention.

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shean C Wu whose telephone number is 703-308-3956. The examiner can normally be reached on Monday-Friday 9:30 -6:00.

Art Unit: 1756

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 703-308-2464. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7718 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Shean C Wu  
Primary Examiner  
Art Unit 1756

scw  
April 18, 2002